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## 10. AN OBSERVATIONAL NOTE ON GANGETIC *LATIA CROSSOCHEILUS LATIUS LATIUS* IN KHOH RIVER, UTTARAKHAND, INDIA

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The taxonomic description of many freshwater fishes has been illustrated earlier by taxonomists in the country. The information on general behaviour, including their migration, reproduction, feeding habits of many freshwater fishes are poorly known.

During my M.Sc. dissertation study from November 2004 to April 2005 on the conservation status of freshwater fishes in the tributaries of River Ramganga in Uttarakhand, I made an interesting observation on *Crossocheilus latius* in the Koh river (Atkore 2005). It is a specialized hill stream fish widely distributed in the Ganges, Brahmaputra, Mahanadi rivers and upper catchment of Krishna river basin in the Western Ghats (Talwar and Jhingran 1991). The species can grow up to 16.5 cm and prefers boulders, gravel bottom and swift flowing section of the channel unit.

It was originally described as *Cyprinus latius* in 1822 by Hamilton Buchanan in his 'GANGETIC FISHES FROM THE TISTA' from the base of Darjeeling Himalayas. He classified this fish as *Cyprinus garra* due to certain similar morphological features and habits that the fish has in common with some species of *Garra* (Mukerji 1934).

On March 12, 2004, I was surveying fish in the Koh river along with my field assistant Bahadur. The shrubby vegetation along the bank and big boulders made it difficult for the fish to move upstream. A deep pool had formed at the bottom of the boulders, but some species, especially Snow Trout *Schizothorax richardsonii*, were jumping over boulders to move upstream. One species caught my attention, it was *Crossocheilus latius*. Three individuals of this species were attached to a boulder and slowly moving upstream. Unlike the other species, these were crawling and not jumping over the boulders. While doing so, they lost contact with water for sometime. I observed their movement for ten minutes

16:20 hrs to 16:30 hrs from a close distance. The height of the boulder above the water column was 2.2 m and the width was 0.6 m. The boulder was moist due to intermittent water contact. The lower part of the boulder had algal growth. It seems that this species showed local migratory movement. I did not find any feeding marks by this species on the exposed boulders in this observation. Buchanan (1822) believed that *Crossocheilus latius* was an ancestor of *Garra*. Hora (1921) confirmed that *Crossocheilus* species resemble *Garra* in its structure of air-bladder and the skeleton of the mouthparts.

Available literature on the ecology of species was limited. However, Hora and Mukerji (1936) noted that *Garra gotyla* and *Crossocheilus latius* may compete for food (algae) in the same habitat but they did not provide any data to support their observation. Previous study showed that, *Garra gotyla* was relatively dominant (13.55%) than *Crossocheilus latius latius* (0.44%) in Koh river (Atkore 2005). Again, with this data it may be difficult to conclude that these two species compete with each other for the same food resource. However, this needs further close observation on feeding behaviour or data on gut content of both these species from the same habitat in order to prove this.

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## 11. A NEW RECORD OF LARVAL HOST PLANT OF TAWNY COSTER *ACRAEA VIOLAE* (FABRICIUS)

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Tawny Coster *Acraea violae* (Fabricius) belonging to Family Nymphalidae can be easily identified by its slow fluttering flight (Wynter-Blyth 1957) and is fairly common at lower Bengal plains (Kehimkar 2008). On September 07, 2009, on a sunny morning, while walking through an abandoned rail track near a small village – Belun, Burdwan district (location: 23° 41.568' N; 88° 04.459' E); altitude: 12 m above msl) West Bengal, India, dozens of Tawny Coster larvae of different instars were spotted creeping on the railway tracks. After close observation they were found feeding on a small herb called 'Spade Flower' or 'Pink Ladies Slipper' *Hybanthus enneaspermus* (L.) F. Muell (= *Ionidium suffruticosum* Ging) of Family Violaceae (Paria 2005). The herb grows up to a height of 60 cm and has pink-purple spade-shaped solitary flowers. The plant is well-distributed throughout India. Common Hindi and Bengali names of this plant are 'Ratanpurush' and 'Nunbora' respectively. The known larval host plants of Tawny Coster are *Passiflora foetida*, *P. edulis*, *P. subpeltata*, *Adenia hondala* (Family Passifloraceae), and *Aposora lindleyana* (Family Euphorbiaceae) (Kunte 2000; Robinson *et al.* 2001; Kehimkar 2008), which are mostly climbers. But record of *Hybanthus enneaspermus* (L.) F. Muell as larval host plant for this butterfly has not been documented earlier. It indicates the diversification of known larval host plant for Tawny Coster.



Fig 1: Caterpillar of *Acraea violae* (Fabricius) feeding on the leaves of *Hybanthus enneaspermus* (L.) F. Muell

This new source of food for the larva will help to strengthen the chance of survival of this species in the wild. It may also lead to a record of range extension of this butterfly, where these plants are found in abundance.

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